

ABSTRACT

The present invention improves the magnetization shielding properties of a torque sensor shaft for a magnetostrictive torque sensor. Specifically, according to the present invention, a magnetostrictive torque sensor shaft 2 is provided with a magnetostrictive detection portion 5 and an engaging portion 6 for engaging a power transmission shaft, wherein the torque sensor shaft 2 includes a magnetostrictive material, and is provided with a paramagnetic layer, which contains retained austenite, at a surface of a range that includes at least the engaging portion 6, but excludes the magnetostrictive detection portion 5. Also a method for manufacturing the same is provided.